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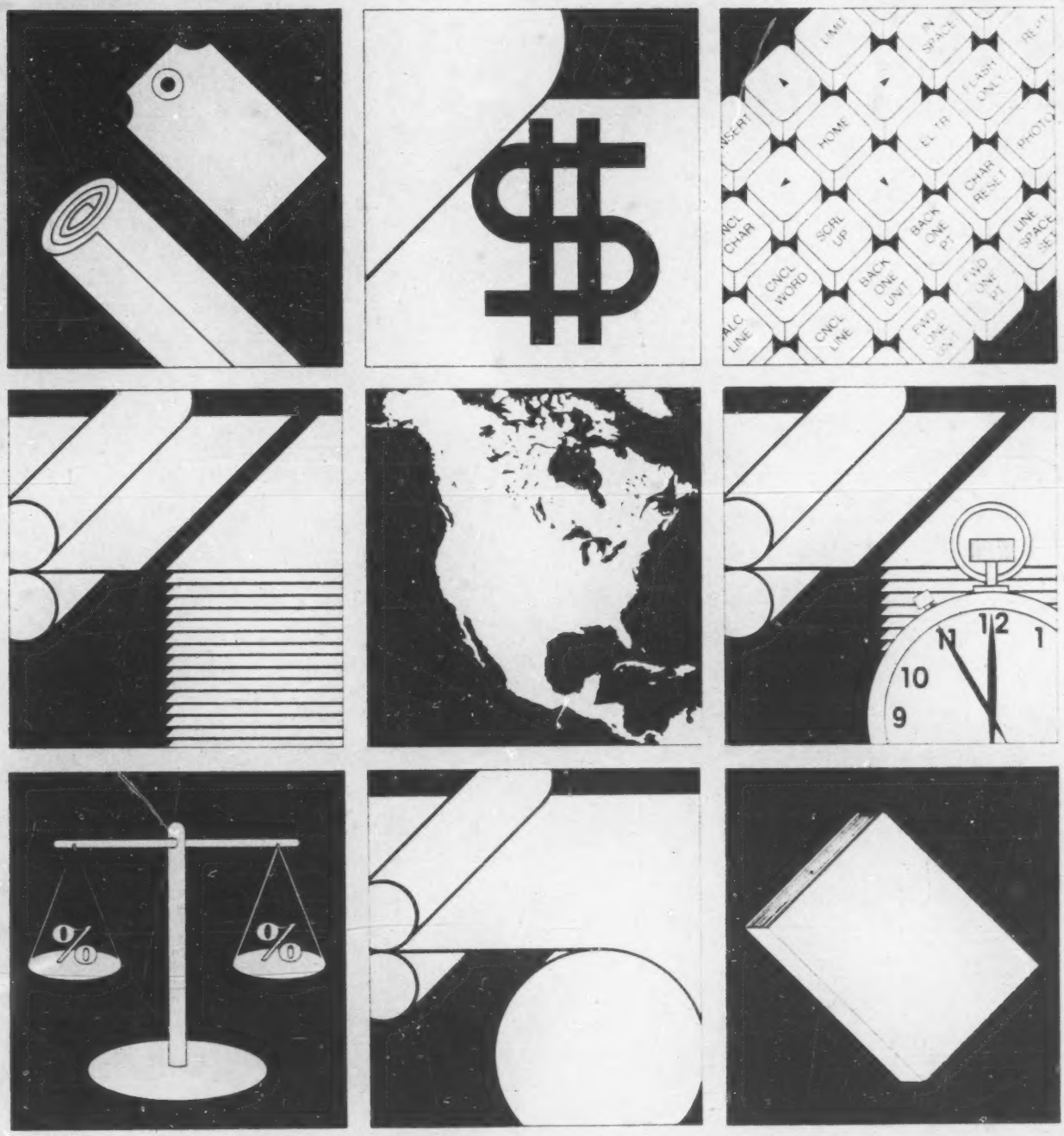
Printing Industries of America, Inc.

1984 Financial Ratios



Volume IV
All Printers by Geographic Area

ABOUT PIA . . .

Printing Industries of America, Inc., is a federation of national, regional, state, and city associations composed of over 11,000 graphic arts firms. PIA and its affiliated associations comprise the largest trade association in the world dedicated to serving the interests of the graphic arts community. Membership in one of PIA's Affiliated Associations automatically entitles an organization PIA membership.

PIA's Management Services Department is active in financial management offering numerous publications, conferences, and seminars:

- Best & Worst Markets for Printers in the 1980s - a unique marketing and financial planning aid, available by subscription
- Cost Accounting for the Job Order Printer
- Graphic Arts Estimating, Volume I
- Money Making Guide to Printing Estimating, revised edition
- Sales Compensation in the Printing Industry - 1983
- Simplified Cost System
- Tax Planning for Your Graphic Arts Business
- Understanding Value Added
- Value Added Financial Management: A Guide for Printers
- 1981-82 Production Compensation Survey
- 1983 Survey of Sales Management: Practices and Compensation
- 1984 Executive Compensation Report
- Costing, Estimating, and Pricing Systems Conferences
- Managing your Printing Business Conferences

For information on any of the above contact the Management Services Department:

Printing Industries of America, Inc.
Management Services Department
1730 North Lynn Street
Arlington, Virginia 22209
(703) 841-8194

In addition, PIA Financial Services offers the following publications and seminars:

- The Annual PIA Financial Ratio Study - A Multinational Financial Survey
- Money Manager - A Monthly newsletter
- Reprints of "Economics and Financial Management" articles from issues of PIA Management News
- Financial Management Seminars
- Seminars on financial applications for microcomputers

For further information, contact:

William A. Rose, II
Director of Financial Services
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61ST annual ratio study compiled from the operating statements and balance sheets submitted by representative members of the printing industry, and computed by RGS Enterprises, Inc., 1 Carlisle Drive, Arnold, Maryland 21012.

1984 FINANCIAL RATIOS

ALL PRINTERS BY GEOGRAPHIC REGION

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PRINTING INDUSTRIES OF AMERICA, INC.

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Printed in U.S.A.

PRINTING INDUSTRIES OF AMERICA, INC.
1730 North Lynn Street, Arlington, VA 22209 (703) 841-8100

Dear Colleague:

1984 is the 61st year in which Printing Industries of America, Inc. has collected and published detailed financial ratio information for members of the graphic arts community. The data presented each year provide a detailed and comprehensive picture of the financial status of the major segments of the U.S. and Canadian graphic arts industries. In addition, it allows individual firms to compare their annual performance with that of many other similar firms, including those which earn well above-average profits. Ratio results are published annually. They are summarized as follows:

- Management Guide to the PIA Ratios
- All Printers by Sales Volume
- All Printers by Product Specialty
- All Printers by Geographic Area
- Sheetfed Printers by Size and Geographic Area
- Web Offset Printers — Heatset
- Web Offset Printers — Non-Heatset
- Combination Offset — Sheetfed/Web
- Book Manufacturers' Ratios
- Large Printers' Ratios
- Typographers' Ratios
- Preparatory Specialists' Ratios
- Binders' Ratios
- Quick Printers

For a more complete composite picture of your company's performance relative to the U.S. and Canadian printing industry, several books could be used in your analysis, such as one of the overview volumes, e.g., *All Printers by Sales Volume*, and one that addresses your particular business segment or production process, e.g., *Book Manufacturers or Web Offset — Heatset*, respectively. Alternatively, such analysis is facilitated by participating in the Ratio Study each year and ordering an individual company computer printout which compares a participant's ratios to those of companies which are similar in size and sales volume, produce the same products, and use the same manufacturing process.

Please refer your questions on the PIA Ratio Study to your nearest local PIA affiliated association or to William A. Rose, II, Director of Financial Services, Printing Industries of America, Inc., 1730 North Lynn Street, Arlington, VA 22209 (703) 841-8145.

Jim Olsen
Vice-President, Management Services
Printing Industries of America, Inc.

Dear Member of the Graphic Arts Community:

We are pleased to be a part of PIA's 1984 Financial Ratio Study. This year, a total of 901 firms representing the printing industry in the United States and Canada participated in these studies by responding to PIA's questionnaire on financial performance. Such widespread participation has made the annual PIA Ratio Studies the most comprehensive financial reports available on the health of the graphic arts industry.

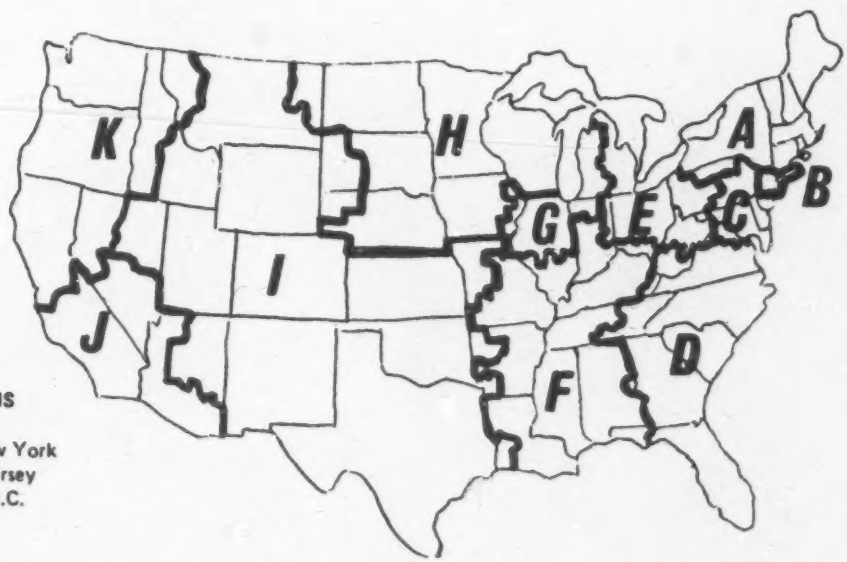
This book presents the financial status of printing firms according to geographic area — for example, New England and Up-State New York, Metropolitan New York and New Jersey, etc. Readers can compare the data from their own firm's financial statements with similar data from other firms located in the same geographic area in five areas: Operations based on Value Added and its Supporting Schedules, Operations based on Sales and its Supporting Schedules, Balance Sheet Ratios, Significant Facts, and Return on Investment.

We strongly believe in the importance of sharing this type of information among members of the graphic arts community and are proud to have played a role in compiling these studies.

H.R. Margolis Company
Certified Public Accountants
Bala Cynwyd, Pennsylvania

TABLE OF CONTENTS

	Page Number
FOREWORD	2
VALUE ADDED -- WHAT IT MEANS TO YOU	4- 5
ALL PRINTERS BY GEOGRAPHIC REGION	6-19
New England and Up-State New York	
Metropolitan New York and New Jersey	
Eastern Penna., Maryland and D.C.	
Southeast Atlantic	
East North Central	
South Central	
Chicago Area	
West North Central	
Plains and Mountain States	
Pacific Southwest	
Pacific Northwest	
Canada	
Report on Operations - Value Added = 100%	6- 7
Supporting Schedules - Value Added = 100%	8- 9
Report on Operations - Sales = 100%	10-11
Supporting Schedules - Sales = 100%	10-13
Balance Sheet	14-15
Significant Facts	16-17
Return on Investment - Per $100 of Sales	18-19
ABSOLUTE DATA	20



CONSOLIDATED REGIONS

A. New England and Up-state New York
B. Metropolitan New York and Jersey
C. Eastern Penn., Maryland and D.C.
D. Southeast Atlantic
E. East North Central
F. South Central
G. Chicago Area
H. West North Central
I. Plains and Mountain States
J. Pacific Southwest
K. Pacific Northwest

VALUE ADDED DEFINED

Value added is simply your sales less material costs, which include paper, other chargeable materials and outside services. Value added is, therefore, that component of a sale attributable to your own manufacture. It is calculated as follows:

Sales		$100.00
Less Materials:		
Paper	$ 23.03	
Other chargeable materials	5.38	
Outside services	8.03	36.44
Value Added		$ 63.56

Other chargeable materials include ink, film, plates, etc., but not general supplies, such as repair or maintenance parts. Outside services are purchases of job-related services -- composition, offset preparation, printing, bindery, etc.

KNOWN BY OTHER TERMS

Value added is also known by such other terms as inside sales, conversion value, inside manufacturing value and real contribution to overhead and profit. Whatever the term, the concept of value added is of prime importance to the profitability of your operations.

CONCEPTUAL UNDERSTANDING OF VALUE ADDED

Once you observe that value added is the residual of sales less material costs, you realize that this value provided by your own manufacture is all you have available to pay your remaining expenses. These are:

- Factory labor
- Other factory expenses
- Administrative expenses
- Selling expenses
- Interest

Then, what is left is a profit. This is different from the basic "cost sheet concept" that we are accustomed to in the printing industry.

Since, generally, within a relevant range of operations, these expenses behave as fixed costs, the "overhead" represented by these expenses will remain practically constant. Therefore, you want to maximize your value added.

Let us illustrate this with the following example, in which we are increasing the value added derived from $1,000,000 of sales from $635,600 to $675,000 to see the effect on operating income. We will assume that "overhead" (factory labor; other factory, administrative, selling and interest expenses) will remain the same.

The assumption that these expenses will not increase is being taken with some license; actually they would increase, but very little. We are taking this liberty to prove the point that, within this relevant range, these expenses behave in a fixed manner. This helps to understand the effect of value added on profit.

	Original	After Increase in Value Added
SALES	$1,000,000	
Material Costs	364,400	
VALUE ADDED	635,600	$675,000
"Overhead"	591,000	591,000
Operating Income	$ 44,600	$ 84,000

STATEMENT OF OPERATIONS -- VALUE ADDED: THE BETTER STATEMENT

By eliminating the distortion that material costs introduce into the conventional operating statement, value added gives you a truer picture of your operations.

For example, if we were comparing the statement of operations of a short-run, sheet-fed company with that of a web-offset firm, and our comparison was related to percentages based on sales, we could have significant differences in ratios. The reason: the significant differences in material costs. It would appear that the web-offset operation had a lower factory labor cost because a substantial amount of the sale was materials. But, in truth, the factory labor cost could be more or less than its counterpart sheet-fed operation as it relates to the value added produced by this labor.

Almost every company's product mix is different and, by using statements of operations based on value added, this product mix difference is eliminated. In conclusion, the Statement of Operations -- Value Added is a better statement with which to evaluate your operations.

ALL PRINTERS BY GEOGRAPHIC REGION

REPORT ON OPERATIONS - VALUE ADDED = 100%

	NEW ENGLAND AND UP-STATE NEW YORK	METROPOLITAN NEW YORK AND NEW JERSEY	EASTERN PENNA. MARYLAND AND D.C.
SALES OR VALUE OF PRODUCT PRODUCED	X	X	X
LESS: PAPER, OTHER CHARGEABLE MATERIALS AND OUTSIDE SERVICES	X	X	X
VALUE ADDED BY MANUFACTURE	100.00%	100.00%	100.00%
FACTORY PAYROLL	43.65	37.26	44.25
FACTORY EXPENSES	20.93	20.73	19.74
TOTAL FACTORY COST OF PRODUCT	64.58	57.99	63.99
GROSS PROFIT	35.42	42.01	36.01
ADMINISTRATIVE AND SELLING EXPENSES			
Administrative expenses	15.62	16.89	15.34
Selling expenses	12.19	13.34	11.80
TOTAL ADMINISTRATIVE AND SELLING EXPENSES	27.81	30.23	27.14
INCOME BEFORE INTEREST EXPENSE	7.61	11.78	8.87
Interest expense	3.25	3.59	2.57
OPERATING INCOME	4.36	8.19	6.30
Other income	0.77	0.59	0.94
INCOME BEFORE INCOME TAXES	5.13	8.78	7.24

SOUTHEAST ATLANTIC	EAST NORTH CENTRAL	SOUTH CENTRAL	CHICAGO AREA	WEST NORTH CENTRAL	PLAINS AND MOUNTAIN STATES	PACIFIC SOUTHWEST	PACIFIC NORTHWEST	CANADA
X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
41.89	44.32	42.43	42.72	42.26	41.23	39.40	40.95	45.16
21.47	19.36	20.78	20.33	19.47	21.41	21.85	21.15	18.51
63.36	63.68	63.21	63.05	61.73	62.64	61.25	62.10	63.67
36.64	36.32	36.79	36.95	38.27	37.36	38.75	37.90	36.33
16.33	14.19	15.71	14.72	15.27	17.34	16.85	17.55	15.19
12.47	13.50	14.24	13.12	12.82	12.64	13.41	13.01	13.33
28.80	27.69	29.95	27.84	28.09	29.98	30.26	30.56	28.52
7.84	8.63	6.84	9.11	10.18	7.38	8.49	7.34	7.81
3.16	2.82	3.05	2.57	3.36	2.95	3.21	3.86	3.60
4.68	5.81	3.79	6.54	6.82	4.43	5.28	3.48	4.21
1.21	1.46	1.62	0.36	0.76	1.65	0.88	1.34	1.29
5.89	7.27	5.41	6.90	7.58	6.08	6.16	4.82	5.50

ALL PRINTERS BY GEOGRAPHIC REGION

SUPPORTING SCHEDULES - VALUE ADDED = 100%

	NEW ENGLAND AND UP-STATE NEW YORK	METROPOLITAN NEW YORK AND NEW JERSEY	EASTERN PENNA. MARYLAND AND D.C.
FACTORY PAYROLL			
Salaries - executive	3.99%	2.07%	2.60%
Direct wages	29.37	25.74	29.69
General factory salaries and wages	2.48	3.07	3.54
Packing, shipping and delivery wages	1.25	1.02	1.37
Payroll taxes	3.02	2.28	3.02
Employee benefits	3.54	3.08	4.03
TOTAL FACTORY PAYROLL	43.65	37.26	44.25
FACTORY EXPENSES			
Fixed Expenses			
Depreciation - real estate	0.33	0.42	0.56
Depreciation - other	5.14	5.50	4.43
Taxes - real estate	0.40	0.37	0.25
Taxes - other	0.21	0.11	0.16
Insurance	0.85	1.55	1.00
Building rent	2.18	2.41	2.09
Utilities - heat, light, etc.	2.36	2.51	2.15
Equipment rental	0.96	0.28	0.65
Total Fixed Expenses	12.43	13.15	11.29
Other Expenses			
Factory supplies and expense	3.28	2.49	3.15
Packing, shipping and delivery expense	1.79	1.49	1.99
Repairs and maintenance	2.30	2.22	2.33
Other factory expenses	1.13	1.38	0.98
Total Other Expenses	8.50	7.58	8.45
TOTAL FACTORY EXPENSES	20.93	20.73	19.74
ADMINISTRATIVE EXPENSES			
Salaries - executive	4.81	5.37	4.55
Salaries - office	3.69	4.38	3.96
Payroll taxes	0.71	0.84	0.58
Employee benefits	0.97	1.03	0.99
Bad debts	0.51	0.30	0.37
Office supplies and expenses	0.82	0.95	0.64
Professional fees	0.88	1.32	0.94
Taxes - business	0.09	0.27	0.21
Telephone	0.85	0.79	0.84
Other administrative expenses	2.29	1.64	2.26
TOTAL ADMINISTRATIVE EXPENSES	15.62	16.89	15.34
SELLING EXPENSES			
Salaries - executive	1.63	1.85	2.45
Salaries and commissions - salesmen	5.34	6.04	4.51
Salaries - sales office clerical	1.14	0.50	0.80
Payroll taxes	0.51	0.68	0.47
Employee benefits	0.58	0.37	0.51
Advertising	0.41	1.05	0.61
Travel and entertainment	1.64	1.29	1.19
Other selling expenses	0.94	1.56	1.26
TOTAL SELLING EXPENSES	12.19	13.34	11.80

SOUTHEAST ATLANTIC	EAST NORTH CENTRAL	SOUTH CENTRAL	CHICAGO AREA	WEST NORTH CENTRAL	PLAINS AND MOUNTAIN STATES	PACIFIC SOUTHWEST	PACIFIC NORTHWEST	CANADA
3.45%	3.36%	3.08%	2.90%	3.41%	3.01%	2.94%	2.41%	3.71%
29.37	29.03	27.93	28.12	28.53	28.38	28.13	29.39	32.51
2.20	3.03	3.10	2.57	2.46	3.14	1.87	1.62	3.18
1.37	1.13	1.56	1.66	1.26	1.30	1.13	0.91	1.32
2.68	3.15	2.87	3.11	2.91	2.76	2.75	3.42	1.49
2.82	4.62	3.89	4.36	3.69	2.64	2.58	3.20	2.95
41.89	44.32	42.43	42.72	42.26	41.23	39.40	40.95	45.16
0.36	0.52	0.46	0.41	0.59	0.51	0.23	0.57	0.43
6.37	4.58	5.25	5.41	4.75	5.64	4.85	5.35	4.89
0.30	0.30	0.20	0.52	0.31	0.27	0.12	0.25	0.60
0.40	0.57	0.47	0.15	0.16	0.45	0.43	0.42	0.15
0.73	0.70	0.75	0.64	0.74	0.91	1.15	0.91	0.52
2.27	1.34	1.86	1.97	1.90	2.15	3.69	3.86	2.38
2.05	2.10	2.24	2.36	1.97	2.11	1.66	1.30	1.48
0.88	0.88	0.95	0.51	0.92	1.25	1.30	1.25	0.51
13.36	10.99	12.18	11.97	11.34	13.29	13.43	13.91	10.96
3.53	3.71	3.59	3.34	3.18	3.00	3.33	2.60	2.28
1.15	1.41	1.36	1.75	1.91	1.46	1.74	1.57	1.93
2.37	1.81	2.19	2.36	2.04	2.12	2.35	1.88	2.31
1.06	1.44	1.46	0.91	1.00	1.54	1.00	1.19	1.03
8.11	8.37	8.60	8.36	8.13	8.12	8.42	7.24	7.55
21.47	19.36	20.78	20.33	19.47	21.41	21.85	21.15	18.51
4.64	4.45	4.74	4.51	5.25	5.71	5.00	5.25	3.96
3.83	3.26	3.81	3.15	3.20	4.39	3.99	3.72	4.20
0.63	0.66	0.61	0.53	0.61	0.66	0.59	0.75	0.26
0.94	0.86	1.11	0.91	0.83	0.85	0.91	0.92	0.54
0.72	0.42	0.43	0.50	0.65	0.90	0.86	1.07	1.26
0.92	0.54	0.72	0.72	0.67	0.81	0.87	0.76	0.90
0.81	0.95	0.90	0.82	0.95	0.82	1.10	1.02	1.01
0.33	0.37	0.31	0.24	0.11	0.21	0.18	0.74	0.28
0.98	0.62	0.67	0.75	0.63	0.77	0.95	0.90	0.86
2.53	2.06	2.41	2.59	2.37	2.22	2.40	2.42	1.92
16.33	14.19	15.71	14.72	15.27	17.34	16.85	17.55	15.19
2.16	2.63	1.77	2.13	2.55	2.56	1.94	1.83	1.93
5.45	5.00	6.89	5.50	5.49	5.59	6.23	6.32	6.32
1.05	1.12	1.27	0.92	0.96	0.91	0.74	0.96	0.98
0.48	0.54	0.60	0.44	0.51	0.50	0.54	0.62	0.20
0.52	0.74	0.70	0.55	0.58	0.42	0.49	0.58	0.38
0.73	0.56	0.66	0.37	0.64	0.77	0.74	0.79	0.79
0.99	1.36	1.33	1.37	1.36	0.97	1.53	1.15	1.62
1.09	1.55	1.02	1.84	0.73	0.92	1.20	0.76	1.11
12.47	13.50	14.24	13.12	12.82	12.64	13.41	13.01	13.33

ALL PRINTERS BY GEOGRAPHIC REGION

REPORT ON OPERATIONS - SALES = 100%

	NEW ENGLAND AND UP-STATE NEW YORK	METROPOLITAN NEW YORK AND NEW JERSEY	EASTERN PENNA., MARYLAND AND D.C.
SALES OR VALUE OF PRODUCT PRODUCED	100.00%	100.00%	100.00%
FACTORY COST OF PRODUCT			
MATERIALS			
Paper	22.92	21.25	21.43
Other chargeable materials	5.29	4.90	5.82
Outside services	6.96	9.90	7.76
TOTAL MATERIALS	35.17	36.05	35.01
FACTORY PAYROLL	28.38	23.33	28.84
FACTORY EXPENSES	13.42	13.51	12.68
TOTAL FACTORY COST OF PRODUCT	76.97	72.89	76.53
GROSS PROFIT	23.03	27.11	23.47
ADMINISTRATIVE AND SELLING EXPENSES			
Administrative expenses	10.22	11.18	10.02
Selling expenses	7.99	8.38	7.68
TOTAL ADMINISTRATIVE AND SELLING EXPENSES	18.21	19.56	17.70
INCOME BEFORE INTEREST EXPENSE	4.82	7.55	5.77
Interest expense	2.05	2.20	1.63
OPERATING INCOME	2.77	5.35	4.14
Other income	0.48	0.24	0.57
INCOME BEFORE INCOME TAXES	3.25	5.59	4.71

SUPPORTING SCHEDULES - SALES = 100%

OTHER CHARGEABLE MATERIALS			
Ink	1.67%	1.91%	1.66%
Film	1.06	0.98	1.07
Plates	1.44	1.57	1.42
Other chargeable materials	1.12	0.44	1.67
TOTAL OTHER CHARGEABLE MATERIALS	5.29	4.90	5.82
OUTSIDE SERVICES			
Composition	0.52	0.55	1.23
Offset preparation	1.15	1.16	0.85
Printing	1.39	1.59	1.50
Binding	2.05	5.25	2.22
Other outside services	1.85	1.35	1.96
TOTAL OUTSIDE SERVICES	6.96	9.90	7.76

SOUTHEAST ATLANTIC	EAST NORTH CENTRAL	SOUTH CENTRAL	CHICAGO AREA	WEST NORTH CENTRAL	PLAINS AND MOUNTAIN STATES	PACIFIC SOUTHWEST	PACIFIC NORTHWEST	CANADA
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
24.44	23.62	23.89	23.71	25.12	21.48	22.31	21.51	24.40
5.02	5.84	5.31	5.63	6.14	5.75	4.41	4.94	5.89
6.39	6.19	7.87	9.87	7.87	8.80	10.53	8.89	8.50
35.85	35.65	37.07	39.21	39.13	36.03	37.25	35.34	38.79
26.87	28.52	26.80	26.19	25.74	26.35	24.67	26.46	27.58
13.78	12.38	12.95	12.36	11.80	13.65	13.65	13.61	11.26
76.50	76.55	76.82	77.76	76.67	76.03	75.57	75.41	77.63
23.50	23.45	23.18	22.24	23.33	23.97	24.43	24.59	22.37
10.51	9.21	9.99	8.75	9.39	11.20	10.65	11.36	9.43
8.02	8.66	8.91	8.10	7.88	8.08	8.44	8.44	8.12
18.53	17.87	18.90	16.85	17.27	19.28	19.09	19.80	17.55
4.97	5.58	4.28	5.39	6.06	4.69	5.34	4.79	4.82
2.00	1.82	1.87	1.52	2.03	1.87	1.99	2.50	2.17
2.97	3.76	2.41	3.87	4.03	2.82	3.35	2.29	2.65
0.75	0.94	0.94	0.22	0.48	1.09	0.53	0.80	0.76
3.72	4.70	3.35	4.09	4.51	3.91	3.88	3.09	3.41
1.43%	1.51%	2.04%	2.66%	2.72%	1.47%	1.54%	1.43%	1.80%
1.21	1.15	0.96	1.01	1.09	1.36	1.07	1.01	1.27
1.36	1.21	0.99	1.14	0.92	1.13	1.07	1.05	1.07
1.02	1.97	1.32	0.82	1.41	1.79	0.73	1.45	1.75
5.02	5.84	5.31	5.63	6.14	5.75	4.41	4.94	5.89
0.94	0.55	0.52	0.57	0.56	1.19	1.10	0.87	0.96
1.42	1.56	1.90	1.60	1.93	1.02	2.19	0.97	1.85
1.40	1.01	1.39	3.58	2.03	2.82	3.27	2.75	1.96
0.87	1.95	1.43	2.08	1.71	1.78	2.50	2.41	2.01
1.76	1.12	2.63	2.04	1.64	1.99	1.47	1.89	1.72
6.39	6.19	7.87	9.87	7.87	8.80	10.53	8.89	8.50

ALL PRINTERS BY GEOGRAPHIC REGION

SUPPORTING SCHEDULES - SALES = 100%

	NEW ENGLAND AND UP-STATE NEW YORK	METROPOLITAN NEW YORK AND NEW JERSEY	EASTERN PENNA MARYLAND AND D.C.
FACTORY PAYROLL			
Salaries - executive	2.66%	1.33%	1.68%
Direct wages	19.03	16.29	19.46
General factory salaries and wages	1.59	1.78	2.24
Packing, shipping and delivery wages	0.81	0.61	0.88
Payroll taxes	1.97	1.47	1.98
Employee benefits	2.32	1.85	2.60
TOTAL FACTORY PAYROLL	28.38	23.33	28.84
FACTORY EXPENSES			
Fixed Expenses			
Depreciation - real estate	0.22	0.27	0.32
Depreciation - other	3.28	3.42	2.84
Taxes - real estate	0.26	0.23	0.16
Taxes - other	0.14	0.08	0.11
Insurance	0.55	1.07	0.66
Building rent	1.40	1.59	1.38
Utilities - heat, light, etc.	1.52	1.58	1.36
Equipment rental	0.59	0.24	0.43
Total Fixed Expenses	7.96	8.48	7.26
Other Expenses			
Factory supplies and expense	2.11	1.53	2.06
Packing, shipping and delivery expense	1.15	0.99	1.26
Repairs and maintenance	1.46	1.41	1.48
Other factory expenses	0.74	1.10	0.62
Total Other Expenses	5.46	5.03	5.42
TOTAL FACTORY EXPENSES	13.42	13.51	12.68
ADMINISTRATIVE EXPENSES			
Salaries - executive	3.20	3.66	2.99
Salaries - office	2.41	2.86	2.59
Payroll taxes	0.46	0.59	0.38
Employee benefits	0.63	0.62	0.64
Bad debts	0.33	0.18	0.24
Office supplies and expenses	0.53	0.62	0.41
Professional fees	0.55	0.84	0.61
Taxes - business	0.06	0.20	0.14
Telephone	0.56	0.51	0.55
Other administrative expenses	1.49	1.10	1.47
TOTAL ADMINISTRATIVE EXPENSES	10.22	11.18	10.02
SELLING EXPENSES			
Salaries - executive	1.08	1.27	1.55
Salaries and commissions - salesmen	3.49	3.61	2.97
Salaries - sales office clerical	0.75	0.28	0.52
Payroll taxes	0.34	0.46	0.30
Employee benefits	0.39	0.23	0.33
Advertising	0.27	0.71	0.40
Travel and entertainment	1.07	0.84	0.78
Other selling expenses	0.60	0.98	0.83
TOTAL SELLING EXPENSES	7.99	8.38	7.68

SOUTHEAST ATLANTIC	EAST NORTH CENTRAL	SOUTH CENTRAL	CHICAGO AREA	WEST NORTH CENTRAL	PLAINS AND MOUNTAIN STATES	PACIFIC SOUTHWEST	PACIFIC NORTHWEST	CANADA
2.24%	2.14%	1.95%	1.80%	2.12%	1.96%	1.82%	1.55%	2.30%
18.86	18.67	17.63	17.24	17.44	18.13	17.67	19.01	19.96
1.39	1.96	1.99	1.60	1.43	1.99	1.14	1.03	1.86
0.86	0.72	0.98	1.02	0.76	0.83	0.71	0.57	0.78
1.72	2.03	1.81	1.89	1.77	1.76	1.71	2.23	0.92
1.80	3.00	2.44	2.64	2.22	1.68	1.62	2.07	1.76
26.87	28.52	26.80	26.19	25.74	26.35	24.67	26.46	27.58
0.23	0.34	0.27	0.26	0.35	0.33	0.14	0.33	0.27
4.11	2.87	3.27	3.30	2.89	3.59	3.02	3.50	2.96
0.19	0.19	0.13	0.31	0.19	0.17	0.08	0.15	0.37
0.25	0.37	0.29	0.09	0.10	0.29	0.28	0.27	0.09
0.48	0.44	0.48	0.40	0.46	0.58	0.73	0.58	0.32
1.47	0.89	1.19	1.23	1.16	1.38	2.29	2.56	1.49
1.31	1.35	1.40	1.43	1.17	1.35	1.02	0.84	0.89
0.59	0.58	0.57	0.32	0.57	0.82	0.82	0.80	0.32
8.63	7.03	7.60	7.34	6.89	8.51	8.30	9.03	6.71
2.24	2.36	2.27	1.99	1.92	1.92	2.09	1.65	1.36
0.73	0.90	0.85	1.02	1.16	0.94	1.09	0.98	1.17
1.50	1.16	1.35	1.45	1.22	1.33	1.45	1.19	1.40
0.58	0.93	0.88	0.56	0.61	0.95	0.64	0.76	0.62
5.15	5.35	5.35	5.02	4.91	5.14	5.27	4.58	4.55
13.78	12.38	12.95	12.36	11.80	13.65	13.65	13.61	11.26
3.01	2.92	2.99	2.69	3.25	3.70	3.17	3.39	2.49
2.46	2.11	2.45	1.91	1.96	2.83	2.55	2.44	2.64
0.41	0.43	0.39	0.30	0.38	0.43	0.37	0.49	0.16
0.60	0.56	0.70	0.55	0.50	0.55	0.56	0.59	0.33
0.46	0.28	0.27	0.30	0.41	0.57	0.53	0.65	0.76
0.59	0.35	0.47	0.44	0.41	0.53	0.55	0.49	0.56
0.52	0.60	0.57	0.49	0.57	0.53	0.69	0.66	0.62
0.22	0.23	0.20	0.15	0.08	0.13	0.11	0.50	0.18
0.63	0.41	0.43	0.45	0.38	0.49	0.60	0.58	0.53
1.61	1.32	1.52	1.47	1.45	1.44	1.52	1.57	1.16
10.51	9.21	9.99	8.75	9.39	11.20	10.65	11.36	9.43
1.38	1.68	1.12	1.32	1.65	1.62	1.22	1.20	1.18
3.49	3.20	4.30	3.37	3.30	3.57	3.93	4.07	3.84
0.69	0.72	0.81	0.59	0.58	0.58	0.47	0.65	0.58
0.31	0.35	0.37	0.27	0.32	0.32	0.33	0.40	0.12
0.33	0.48	0.43	0.34	0.35	0.27	0.31	0.37	0.23
0.48	0.37	0.43	0.24	0.40	0.51	0.47	0.52	0.50
0.64	0.88	0.82	0.82	0.83	0.61	0.97	0.75	1.00
0.70	0.98	0.63	1.15	0.45	0.60	0.74	0.48	0.67
8.02	8.66	8.91	8.10	7.88	8.08	8.44	8.44	8.12

ALL PRINTERS BY GEOGRAPHIC REGION

BALANCE SHEET

	NEW ENGLAND AND UP-STATE NEW YORK	METROPOLITAN NEW YORK AND NEW JERSEY	EASTERN PENNA., MARYLAND AND D.C.
ASSETS			
CURRENT ASSETS			
Cash	5.99%	6.19%	8.32%
Receivables	32.00	31.18	32.13
Inventories	12.43	11.33	14.31
Other current assets	5.94	2.99	5.63
TOTAL CURRENT ASSETS	56.36	51.69	60.39
FIXED ASSETS			
Real estate	10.77	9.64	8.40
Less: Accumulated depreciation	3.11	2.09	2.66
	7.66	7.55	5.74
Machinery and equipment	65.93	61.23	64.39
Less: Accumulated depreciation	37.11	34.42	37.24
	28.82	26.81	27.15
Other fixed assets	7.83	8.45	7.87
Less: Accumulated depreciation	4.55	3.44	4.83
	3.28	5.01	3.04
NET FIXED ASSETS	39.76	39.37	35.93
OTHER ASSETS	3.88	8.94	3.68
TOTAL ASSETS	100.00	100.00	100.00
LIABILITIES AND EQUITY			
CURRENT LIABILITIES			
Notes payable	10.25	11.72	7.48
Accounts payable	17.24	16.49	14.20
Other current liabilities	8.60	7.33	9.54
TOTAL CURRENT LIABILITIES	36.09	35.54	31.22
LONG-TERM LIABILITIES	30.32	23.26	22.90
TOTAL LIABILITIES	66.41	58.80	54.12
SHAREHOLDERS' AND PROPRIETORS' EQUITY	33.59	41.20	45.88
TOTAL LIABILITIES AND EQUITY	100.00	100.00	100.00

BALANCE SHEET RATIOS

CURRENT RATIO	1.56	1.45	1.93
QUICK RATIO	1.22	1.14	1.48
TOTAL LIABILITIES TO EQUITY	1.98	1.43	1.18
LONG-TERM LIABILITIES TO EQUITY	0.90	0.56	0.50
ACCUMULATED DEPRECIATION - MACHINERY AND EQUIPMENT TO TOTAL MACHINERY AND EQUIPMENT	0.56	0.56	0.58

SOUTHEAST ATLANTIC	EAST NORTH CENTRAL	SOUTH CENTRAL	CHICAGO AREA	WEST NORTH CENTRAL	PLAINS AND MOUNTAIN STATES	PACIFIC SOUTHWEST	PACIFIC NORTHWEST	CANADA
8.22%	8.01%	6.30%	6.88%	5.56%	9.19%	8.76%	7.61%	2.60%
28.13	31.89	32.23	30.98	31.75	31.28	36.92	31.34	34.42
12.12	14.51	13.63	15.12	15.32	11.57	10.66	11.88	14.45
4.26	3.65	3.91	4.18	3.24	3.54	4.38	3.52	3.64
52.73	58.06	56.07	57.16	55.87	55.58	60.72	54.35	55.11
9.46	14.05	11.32	9.75	12.74	10.94	4.72	6.85	11.21
3.21	4.80	3.46	3.72	3.75	3.43	1.70	1.96	3.11
6.25	9.25	7.86	6.03	8.99	7.51	3.02	4.89	8.10
70.52	62.65	65.27	69.11	62.29	65.58	60.98	67.12	68.32
37.28	35.90	37.10	40.53	34.46	37.25	32.41	34.93	37.79
33.24	26.75	28.17	28.58	27.83	28.33	28.57	32.19	30.53
9.27	6.33	8.41	6.77	6.10	8.67	9.00	7.47	5.36
4.80	3.60	4.13	3.52	3.23	4.73	4.90	3.56	2.67
4.47	2.73	4.28	3.25	2.87	3.94	4.10	3.91	2.69
43.96	38.73	40.31	37.86	39.69	39.78	35.69	40.99	41.32
3.31	3.21	3.62	4.98	4.44	4.64	3.59	4.66	3.57
100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
7.61	7.13	9.49	5.61	8.21	9.18	9.22	8.02	10.63
12.52	14.13	13.23	13.76	12.55	12.70	16.65	13.65	16.81
7.92	9.65	10.29	10.98	10.02	6.36	9.79	10.23	10.58
28.05	30.91	33.01	30.35	30.78	28.24	35.66	31.90	38.02
30.43	23.88	24.86	29.54	27.77	25.02	25.99	33.55	29.70
58.48	54.79	57.87	59.89	58.55	53.26	61.65	65.45	67.72
41.52	45.21	42.13	40.11	41.45	46.74	38.35	34.55	32.28
100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1.88	1.88	1.70	1.88	1.82	1.97	1.70	1.70	1.45
1.45	1.41	1.29	1.39	1.32	1.56	1.40	1.33	1.07
1.41	1.21	1.37	1.49	1.41	1.14	1.61	1.89	2.10
0.73	0.53	0.59	0.74	0.67	0.54	0.68	0.97	0.92
0.53	0.57	0.57	0.59	0.55	0.57	0.53	0.52	0.55

ALL PRINTERS BY GEOGRAPHIC REGION

SIGNIFICANT FACTS

	NEW ENGLAND AND UP-STATE NEW YORK	METROPOLITAN NEW YORK AND NEW JERSEY	EASTERN PENNA., MARYLAND AND D.C.
INVESTMENT			
Average assets per employee - All employees	$ 32,499	$ 52,534	$ 32,997
Average assets per factory employee (Excluding Executives)	44,607	73,582	44,816
Average net worth per employee - All employees	11,456	23,668	14,715
Average gross plant investment per factory employee (Excluding Executives)	36,448	59,042	34,806
Net worth percentage of fixed assets	110.65%	124.21%	156.51%
EMPLOYEES			
Percent factory - All employees	77.60%	73.96%	76.98%
Percent administrative - All employees	12.60	16.19	13.97
Percent sales - All employees	9.80	9.85	9.05
SALES - VALUE OF PRODUCT PRODUCED INCLUDING EXECUTIVES			
Sales per employee - All employees	$ 62,472	$ 91,257	$ 65,936
Sales per factory employee	80,966	123,872	86,550
Sales less material per factory employee	50,846	76,866	54,890
Sales per administrative employee	638,718	742,429	642,290
EXCLUDING EXECUTIVES			
Sales per employee - All employees	69,409	100,386	72,887
Sales per factory employee	85,965	129,138	90,080
Sales less material per factory employee	54,127	80,268	57,148
SALES PER SALESMAN	1,018,910	943,735	1,026,350
SALES TO CURRENT ASSETS	395%	398%	409%
PAYROLL - INCLUDING TAXES AND BENEFITS INCLUDING EXECUTIVES			
Total payroll percentage of sales	41.13%	36.91%	41.11%
Factory payroll percentage of gross plant investment	73.71	67.32	89.92
Payroll per employee - All employees	$ 24,403	$ 31,989	$ 26,153
Payroll per factory employee	21,672	27,510	23,968
Payroll per administrative employee	32,423	41,589	31,327
Payroll per sales employee	37,061	51,658	38,273
PAYROLL - EXCLUDING TAXES AND BENEFITS EXCLUDING EXECUTIVES			
Payroll per employee - All employees	$ 18,562	$ 23,802	$ 20,055
Payroll per factory employee	17,515	22,441	19,512
Payroll per administrative employee	15,876	18,907	16,805
Payroll per sales employee	29,454	36,843	25,199
EXECUTIVE PAYROLL			
Payroll per executive - All executives	50,786	66,853	50,253
Payroll per factory executive	33,239	34,170	29,791
Payroll per administrative executive	63,337	83,481	59,649
Payroll per sales executive	46,556	41,615	43,889
RECEIVABLES			
Collection period	57.2	57.2	55.9
PROFIT			
Gross profit percentage of sales	23.03%	27.11%	23.47%
Average gross profit per factory employee	$ 19,733	$ 34,715	$ 21,027
Income before taxes percentage of sales	3.25%	5.59%	4.71%
Average income before taxes per employee	$ 2,402	$ 6,090	$ 3,297

SOUTHEAST ATLANTIC	EAST NORTH CENTRAL	SOUTH CENTRAL	CHICAGO AREA	WEST NORTH CENTRAL	PLAINS AND MOUNTAIN STATES	PACIFIC SOUTHWEST	PACIFIC NORTHWEST	CANADA
$ 29,450	$ 35,144	$ 38,328	$ 49,141	$ 38,866	$ 32,586	$ 31,379	$ 36,568	$ 32,314
40,584	50,060	53,795	68,174	54,465	47,432	46,956	54,795	49,239
13,087	15,903	16,632	20,137	15,641	15,896	11,845	12,581	11,409
34,183	39,673	42,492	53,482	42,015	40,127	34,541	42,582	40,254
112.87%	136.11%	122.84%	142.38%	151.53%	197.37%	159.89%	114.51%	127.11%
76.53%	75.88%	75.31%	77.53%	75.96%	72.26%	72.55%	70.84%	72.85%
13.33	12.70	13.21	11.83	12.72	16.50	15.30	15.45	14.67
10.14	11.42	11.48	10.64	11.32	11.24	12.15	13.71	12.48
$ 53,676	$ 67,479	$ 68,951	$ 95,983	$ 73,188	$ 63,401	$ 70,276	$ 68,442	$ 57,724
70,389	89,066	92,983	126,799	97,450	89,028	98,908	98,781	81,195
44,822	56,599	57,065	72,427	58,011	56,221	61,106	62,187	48,059
572,766	692,788	659,802	934,785	771,976	535,111	600,651	572,054	534,283
60,075	75,750	75,417	106,510	81,727	72,239	78,992	76,761	67,422
75,021	95,153	97,676	133,911	104,292	94,212	105,180	104,172	89,267
47,841	60,462	59,984	76,685	62,172	59,566	64,952	65,530	52,963
624,932	744,759	714,061	768,126	1,083,907	553,030	518,972	485,616	534,832
406%	372%	380%	401%	397%	437%	554%	444%	385%
39.55%	40.98%	40.36%	37.53%	38.02%	40.22%	37.58%	40.07%	39.15%
67.34	78.41	67.26	66.81	73.52	81.82	143.96	82.10	70.21
$ 20,724	$ 27,074	$ 26,687	$ 33,090	$ 26,774	$ 24,837	$ 25,977	$ 26,518	$ 21,338
18,398	24,961	23,444	29,479	24,117	22,648	23,656	24,756	20,919
27,537	31,428	32,966	40,984	31,590	30,341	29,499	30,494	20,945
32,291	38,215	45,404	47,466	40,197	34,100	34,737	33,326	25,752
$ 16,131	$ 20,335	$ 20,210	$ 24,897	$ 20,284	$ 19,482	$ 20,389	$ 20,512	$ 18,392
15,267	19,870	18,878	23,563	19,548	18,897	19,699	20,300	18,469
13,850	16,279	16,096	19,876	15,315	16,261	15,550	15,155	13,388
26,632	27,900	35,326	37,767	29,195	26,079	27,061	26,427	21,508
40,326	46,104	51,334	59,690	46,962	42,654	44,194	40,957	31,599
27,491	28,235	34,762	33,528	29,977	28,489	25,910	23,821	25,080
47,505	51,855	62,887	72,648	58,310	48,201	45,371	45,563	32,943
42,578	45,920	51,868	48,350	47,280	34,210	35,335	23,143	27,188
55.5	59.5	59.5	57.6	60.8	54.4	58.5	54.9	68.1
23.50%	23.45%	23.18%	22.24%	23.33%	23.97%	24.43%	24.59%	22.37%
$ 18,145	$ 22,313	$ 22,929	$ 29,944	$ 24,533	$ 22,793	$ 25,816	$ 25,973	$ 19,982
3.72%	4.70%	3.35%	4.09%	4.51%	3.91%	3.88%	3.09%	3.41%
$ 2,467	$ 3,480	$ 2,720	$ 4,774	$ 3,715	$ 2,677	$ 2,545	$ 2,414	$ 2,291

ALL PRINTERS BY GEOGRAPHIC REGION

RETURN ON INVESTMENT - PER $100 OF SALES

	NEW ENGLAND AND UP-STATE NEW YORK	METROPOLITAN NEW YORK AND NEW JERSEY	EASTERN PENNA., MARYLAND AND D.C.
INVESTMENT			
Current Assets:			
Cash	$ 3.25	$ 3.48	$ 4.07
Receivables	15.38	15.41	15.04
Inventories	5.83	5.60	6.11
Marketable securities	1.98	0.87	1.06
Other current assets	1.20	0.90	1.82
	27.64	26.26	28.10
Plant Investment:			
Land and building	6.43	6.96	5.20
Machinery and equipment	32.66	33.22	29.73
Other fixed assets	3.66	5.30	3.43
	42.75	45.48	38.36
Non-Current Assets	2.15	4.71	2.01
TOTAL INVESTMENT	72.54	76.45	68.47
INVESTMENT TURNOVER PER $100 OF SALES	137.85%	130.80%	146.05%
EARNINGS			
Cost of Product	$76.97	$72.89	$76.53
Selling Expenses	7.99	8.38	7.68
Administrative Expenses	10.22	11.18	10.02
	95.18	92.45	94.23
Income Before Interest, Other Income, and Taxes	4.82	7.55	5.77
RETURN ON INVESTMENT - INVESTMENT TURNOVER X INCOME	6.64%	9.88%	8.43%

SOUTHEAST ATLANTIC	EAST NORTH CENTRAL	SOUTH CENTRAL	CHICAGO AREA	WEST NORTH CENTRAL	PLAINS AND MOUNTAIN STATES	PACIFIC SOUTHWEST	PACIFIC NORTHWEST	CANADA
$ 4.96	$ 3.87	$ 3.33	$ 3.43	$ 2.82	$ 4.72	$ 3.72	$ 4.12	$ 1.75
14.88	15.95	15.94	15.37	15.43	14.46	15.48	14.61	17.79
6.81	7.70	7.08	7.89	7.72	5.73	4.54	5.85	7.55
1.04	0.82	1.07	1.14	0.93	0.66	0.26	0.31	0.95
1.35	1.32	1.34	0.99	0.87	1.23	1.73	1.35	1.16
29.04	29.66	28.76	28.82	27.77	26.80	25.73	26.24	29.20
5.38	8.98	7.00	6.50	7.37	6.69	2.18	4.46	7.53
37.20	30.39	32.44	34.82	31.58	32.45	26.10	33.98	36.50
4.36	3.09	4.33	3.66	2.88	4.12	3.68	3.32	3.03
46.94	42.46	43.77	44.98	41.83	43.26	31.96	41.76	47.06
1.91	1.86	1.99	3.04	2.48	2.51	1.66	2.72	1.92
77.89	73.98	74.52	76.84	72.08	72.57	59.35	70.72	78.18
128.39%	135.17%	134.19%	130.14%	138.73%	137.80%	168.49%	141.40%	127.91%
$76.50	$76.55	$76.82	$77.76	$76.67	$76.03	$75.57	$75.41	$77.63
8.02	8.66	8.91	8.10	7.88	8.08	8.44	8.44	8.12
10.51	9.21	9.99	8.75	9.39	11.20	10.65	11.36	9.43
95.03	94.42	95.72	94.61	93.94	95.31	94.66	95.21	95.18
4.97	5.58	4.28	5.39	6.06	4.69	5.34	4.79	4.82
6.38%	7.54%	5.74%	7.01%	8.41%	6.46%	9.00%	6.77%	6.17%

ABSOLUTE DATA

	NUMBER OF PARTICIPATING FIRMS	AVERAGE FIRM REPORTING** TOTAL ASSETS	SALES OR VALUE OF PRODUCTION	TOTAL INCOME
TOTAL - ALL PRINTING FIRMS	901	$3,607,000	$6,411,000	$364,000
ALL PRINTERS BY GEOGRAPHIC REGION				
New England and Up-State New York	79	4,822,000	8,781,000	434,000
Metropolitan New York and New Jersey	16	3,881,000	7,544,000	349,000
Eastern Penna., Maryland and D.C.	71	3,830,000	7,414,000	505,000
Southeast Atlantic	73	2,805,000	5,076,000	294,000
East North Central	42	3,364,000	6,210,000	371,000
South Central	80	4,367,000	7,334,000	380,000
Chicago Area	61	5,897,000	11,039,000	789,000
West North Central	69	5,509,000	8,766,000	624,000
Plains and Mountain States	94	2,221,000	3,746,000	161,000
Pacific Southwest	80	3,078,000	6,162,000	376,000
Pacific Northwest	76	2,490,000	3,911,000	175,000
Canada	160	2,846,000	4,978,000	217,000

HOW THE NUMBERS ARE COMPUTED

The PIA Ratios are computed by the method of relative or common size. With this method each company's dollars are converted into a percentage to the total. Then these percentages are added in total and within a given sales class. This is a very simple way of avoiding what is known as self-weighting when various magnitudes are involved. With this method each company is given equal weight regardless of their size.

The following example illustrates how this calculation process eliminates the problem of the ratios' giving inordinate weight to the results of very large firms.

Firm	Sales	Factory Payroll	% of Sales: Firm's Ratio Factory Payroll	% of Sales: PIA Ratios Factory Payroll
A	$ 200,000	$ 60,000	30.0%	
B	500,000	100,000	20.0	
C	8,000,000	975,000	12.2	
			62.2% divided by 3 = 20.7%	

** Unlike the ratios shown in this book, these figures are arithmetic averages.

HOW DO YOU COMPARE IN NORTH AMERICA?

The Individual Company Computer Printout is a fundamental part of the PIA Financial Ratio Study. It is a detailed, well-organized presentation of key financial information that encompasses every facet of your printing business. It contains data specific to your company that are not available in the published volumes of the study. The Individual Company Computer Printout, designed with you, the busy printing executive in mind, is a concise presentation of:

- Your firm's operating statement;
- Your firm's balance sheet;
- Supporting schedules for your firm's income statement and balance sheet; and
- Your firm's Return on Investment.

In addition:

- Your firm's financial data are expressed in dollars and ratio form;
- The ratios of your printing firm are compared side by side with the ratios of all other ratio study participants and "profit leaders," based on both sales revenue and value added. Ratios of survey participants and "profit leaders" that produce the same products and use the same manufacturing process are also presented for your immediate comparison;
- Using the same presentation format described in the previous item, the ratios of your printing firm are also compared side by side with the ratios of all survey participants and "profit leaders" that are approximately the same size in terms of sales; and
- Finally, "significant facts" statistics are presented to help you gauge where your company stands relative to industry "profit leaders" and the U.S. and Canadian printing industries as a whole.

Because of the detail that the Individual Company Computer Printout contains, it can quickly help you identify those areas and operations of your business that are running efficiently and those that are not. You'll be able to ascertain the seriousness of problems and how much corrective action is necessary. The bottom line is that you can purchase all of these data for a small fraction of what you would have to pay if you generated a similar analysis from scratch.

If you are part of the 1984 database, and have not already done so, I urge you to make the investment. If you are not part of the database, please consider participating in the 1985 PIA Financial Ratio Study and availing yourself of this particular service.

William A. Rose, II
Director
PIA Financial Services